

NANOEMULSION DELIVERY SYSTEM (NeDS)

PCT IB2009/055754 (US PATENT ISSUED)



PATENTS & TECHNOLOGIES



THE MAJOR CHALLENGE IN DEVELOPING A PRODUCT: ACTIVE INGREDIENTS SOLUBILITY

Most of vegetal or synthetic small molecules are characterized by a high hydrophobicity, which causes poor affinity for biological membranes and insufficient bioavailability. When molecules are not able to solubilize, they are not absorbed by the systemic circulation and do not exert their activity.

OUR SOLUTION IS



A PATENTED TECHNOLOGICAL SYSTEM COMPOSED OF A UNIQUE POOL OF EXCIPIENTS THAT HAS BEEN STUDIED TO:

DELIVER INSOLUBLE SUBSTANCES
IN AQUEOUS SOLUTIONS

DELIVER AND IMPROVE THE ABSORPTION
OF HYDROPHOBIC AND INSOLUBLE
SUBSTANCES THROUGH THE SUBLINGUAL ROUTE

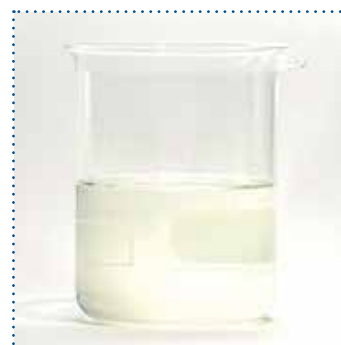
THE TECHNOLOGY BEHIND NeDS

Nanoemulsions are molecular colloidal dispersions, which have an average diameter between 50 and 300 nm. In particular, Labomar nanoemulsions have an average diameter ranging from 100 to 300 nm.

EMULSIONS



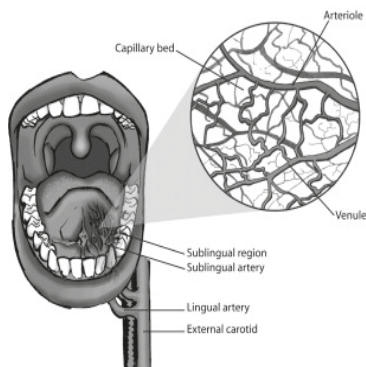
NANOEMULSIONS



PHARMACEUTICAL FORM

SUBLINGUAL ORAL SPRAY

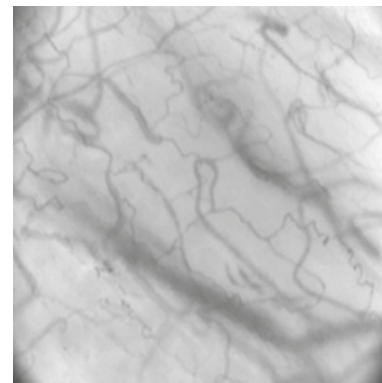
This pharmaceutical form allows to bypass the liver cycle and to avoid the first-pass effect. Thanks to the highly vascularized mucosa, the sublingual route ensures higher and faster absorption of active ingredients.



HIGH VASCULARIZATION

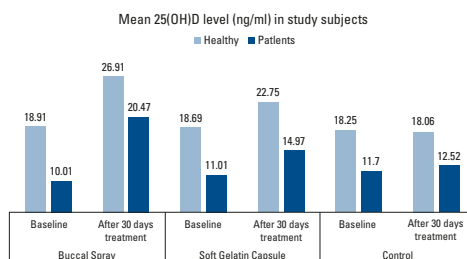
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ENHANCED BIOAVAILABILITY



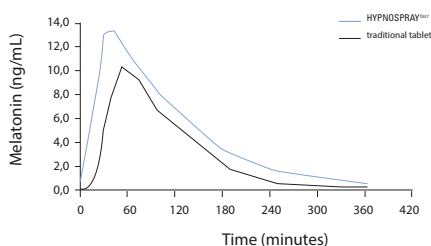
CLINICAL DATA

- VITAMIN D3 ABSORPTION BY INTRAORAL (SPRAY) AND PERORAL (CAPSULES) DELIVERY IN HEALTHY SUBJECTS AND IN PATIENTS WITH MALABSORPTION SYNDROMES**

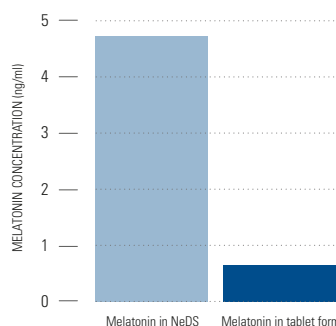


- BIOAVAILABILITY OF A NEW ORAL MELATONIN EMULSION SPRAY COMPARED WITH A STANDARD ORAL FORMULATION ON HEALTHY VOLUNTEERS**

Absorbed amount



Absorption within the first 5 min



- Melatonin in nanoemulsion
- Melatonin in tablets

MAIN ADVANTAGES

DELIVERY OF LIPOPHILIC ACTIVE INGREDIENTS

HIGH BIOAVAILABILITY

HIGH-SPEED ACTION

APPEALING DOSAGE FORM

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LABOMAR